U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
North Plant MGP - Removal Polrep
Final Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENC
Region V

Subject: **POLREP #6**
Final Polrep
North Plant MGP
O5KT
Waukegan, IL
Latitude: 42.3737150 Longitude: -87.8243880

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From: Brad Benning, OSC
Date: 4/16/2015
Reporting Period: October 25, 2014 to April 17, 2015

1. Introduction

1.1 Background

Site Number:	O5KT	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	4/8/2013
Response Authority:	CERCLA	**Response Type:**	PRP Oversight
Response Lead:	PRP	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	5/6/2013	**Start Date:**	5/6/2013
Demob Date:	11/25/2014	**Completion Date:**	4/17/2015
CERCLIS ID:	ILD984807990	**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

Manufacturing/processing/maintenance - oil and gas refining

1.1.2 Site Description

The North Plant site is composed of three parcels (parcels 1, 2, and 4). The former MGP was located on pa

1.1.2.1 Location

The Site is located on vacant land at 849 Pershing Road, Waukegan, Lake County, Illinois. The geographic
Longitude -87.8246 west. The Site is bounded to the north by Dahringer Road, on the west by Pershing Ro
to the south by property owned by A.L. Hansen Manufacturing Company. The Site is located about one-hal

1.1.2.2 Description of Threat

Past data indicates the presence of TCLP benzene concentrations exceeding 0.5 mg/l in addition to concen
groundwater in the area varies from 2-5 feet below ground surface. Groundwater flows east towards Lake I
into the groundwater and migrate to Lake Michigan.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Several site investigations have occurred at the Site since 1990. Analytical results from historical samples i

elevated concentrations of polynuclear aromatic hydrocarbons (PAH) and VOCs in the DNAPL present in b

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

On April 8, 2013, EPA executed an Administrative Order by Consent (AOC) under Sections 104, 106(a), 10 Response, Compensation and Liability Act.

2.1.2 Response Actions

Final inspection after construction was completed was October 17, 2014, followed by a inspection on April 3

Site Preparation Activities Several contractors provided services as part of site preparation and removal a preparation included the following activities: clearing site trees and vegetation, replacing portions of perimet air monitoring stations (AMS), installation of temporary electrical infrastructure, demolition and removal of s construction of site infrastructure (e.g., tracking pads and access roads), installation of a site water service, overhead electric utility.

Environmental Management

Environmental management during removal action construction was in accordance with the RAWP (NRT,S erosion controls, perimeter air monitoring, fugitive emission management, and MGP contact water manage

Erosion controls used during construction included silt fence around the site perimeter and tracking pads at in May 2013 according to the details show non Sheet C021 at locations shown on Sheet C030. Silt fence ar construction. Following installation, erosion controls were inspected weekly and within 24 hours of rain eve 2014. Inspections were performed by James Anderson Company, a third-party Designated Erosion Control

Site perimeter air monitoring was performed by Burns & McDonnell from May 2013 to October 2014 in gene the RAWP (NRT, September 2012). Seven air monitoring stations, AMS 1 through 7, were installed around Sheet C020. Perimeter air monitoring included 24-hour real-time monitoring of total volatile organic compou supplemented with 24-hour time-weighted average sampling. The intent of real-time monitoring was to prov off-site migration of TVOCs and PM10 related to removal action activities. Real-time air monitoring data fro removal action construction by Burns & McDonnell. Based on provided air monitoring data,the reported ave perimeter from May 2013 to October 2014 were below established AACs for the 1 x 10-6 cancer risk with th naphthalene concentrations were between the 1 x 10-5 and 1 x 10-6cancer risk at AMS 1, 2, 3, 4, 6, and 7. between the1 x 10-4 and 1 x 10-5 cancer risk at AMS 5.

Fugitive emissions management was performed in accordance with the Fugitive Emissions Management Pl Management methods included administrative and engineering controls to minimize or prevent fugitive emi sequencing, covering stockpiles with plastic sheeting, application of water to site roads, application of odor spray), and operation of a perimeter odorcontrol misting system.

MGP Contact Water Treatment

To support potential dewatering and management of MGP contact water, a temporary wastewater treatmen treatment system, provided by Carbonair Environmental Systems, Inc. No contact water was treated or dis managed as necessary within removal action areas.

Excavation and Removal of Surface Soil and Historic Structures

In preparation for ISS construction, unsaturated surface soil was excavated and removed within removal ac and to provide storage volume for the expansion of soil treated by ISS, commonly referred to as ISS swell. I removal action areas was performed and historic subsurface structures were demolished and removed prio pre-excavation,and structure demolition and removal were performed by Geo-Solutions, Inc. (GSI).

Unsaturated surface soil and small debris (i.e., less than three feet in every dimension) were removed withi 2014. Surface soil was excavated to a depth of approximately four feet below ground surface and was limit excavation. Excavation depths were less than four feet where groundwater was encountered at higher elev removal action areas prior to loading for off-site transportation and disposal. Fugitive emissions manageme excavation. A total of 44,391.45 tons of removed surface soil and small debris were transported to WMI's C under Waste Profile EF 1496.

Concurrent with surface soil excavation and prior to ISS construction, removal action areas were pre-excav structures for removal. During structure demolition and removal, large debris was resized with a hydraulic h than three feet in every dimension. A total of 9,406.27 tons of resized concrete debris were transported off disposal under Waste Profile EF 1496.

Decommissioning of the Former Waukegan Tar Pit

The pre-construction condition of the former Waukegan Tar Pit included an HDPE cover over the area with was held in place by the berm around the perimeter and with water over the cover surface. In preparation fc decommissioned beginning in April 2014. Water anchoring the HDPE cover over the former Waukegan Tar areas. The HDPE cover was excavated, removed, and managed into small pieces for off-site transportation IL under Waste Profile EF 1496. Following cover removal, soil from the surrounding berm was graded into t swell material from surrounding operations was graded into the excavation to fill the former tar pit area up tc former Waukegan Tar Pit as added to the removal action in accordance with the RAWP addendum (NRT, M

In Situ Solidification/Stabilization

ISS construction was performed by GSI beginning with pilot testing in August 2013 followed by full-scaleISS 2014. A total of 299,549.42 cubic yards of MGP source material and impacted soil were solidified/stabilizec ISS columns.

Equipment and techniques used to complete ISS construction included the following:

- **ISS Grout Batch Plant:** A grout batch plant was mobilized and assembled to store, mix, andconvey ISS g prepared by mixing known quantities of dry reagents and water to achieve the selected mix design. The bat storage Pigs, dry reagent storage silos, a mixing tank, holding tanks, pumps, and ancillary hoses and plumb

- **ISS Soil Mixing Equipment:** Soil and grout mixing was performed using a Delmag RH-28hydraulic vertic series Manitowoc crane. Both drill rigs were equipped with a hollow Kelly bar and a 10-foot diameter single-

- **Excavator Soil Mixing Equipment:** Limited soil mixing was performed using a conventional excavator ca location. Conventional earth moving equipment including bulldozers and hydraulic excavators were used du operations included forklifts, man lifts, vibratory compaction equipment, and off road dump trucks.

At the end of ISS construction, the quantity of produced swell material was calculated to be 36,058.78cubic expansion of the total ISS construction quantity of 299,549.42 cubic yards. Surplus swell material not neede

site for disposal. A total of 28,479.49 tons of ISS swell material were transported off site to WMI's Countrysi IL for direct disposal under the Waste Profile EF 1496 .

2.7 Site Restoration

Site restoration was performed by GSI in a phased progression as areas of ISS construction were complete one half foot soil cover above the constructed ISS swell surface consisting of three feet of clean general fill seeded and mulched. Construction equipment was demobilized and site infrastructure was removed or moc November 25, 2014.

Remaining Site Infrastructure

During site restoration, construction equipment was demobilized and the following site infrastructure was re

- **Tracking Pads:** Tracking pads at site entrances along Pershing Road were removed and replaced with C

- **ISS Batch Plant Area:** CA6 coarse aggregate and underlying nonwoven geotextile were removed from tl fill and topsoil, and then seeded and mulched.

- **Site Access Road:** The aggregate site access road was re-graded.

- **Asphalt Pad:** The asphalt water treatment pad was cleaned of dirt and debris and left inplace.

- **Electric Infrastructure:** Electrical service provided by ComEd was disconnected and electricmeters were electrical infrastructure associated with providing power to AMS 3 and 4 were removed. The utility pole on tl associated with providing power to AMS 5 and 6were removed. Remaining electrical infrastructure includes poles, an electric panel at Pole 3, and underground conduit and wire from Pole 3 to a panel adjacent to the providing power to construction offices and AMS 1, 2, and 7 were removed.

- **Temporary Fence Enclosures:** The six temporary fence enclosures for AMS 1 through 6shown on Shee

- **Site Water Service:** The City of Waukegan shut off the water service to the site onNovember 5, 2014. Th were removed by JR Myers and the meter returned to the City. The water service was modified to a hydran

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

The following provides the relevant regulatory background for the removal action:

- NSG and the USEPA entered into an Administrative Order on Consent and Statement of Work, CERCLA perform Remedial Investigation/Feasibility Study (RI/FS) activities under the Superfund Alternative Sites Pr

- In email correspondence dated April 11, 2012, USEPA requested a work plan to conduct a time-critical re

- NSG and the USEPA entered into an Administrative Order on Consent for Removal Action,CERCLA Docl removal action in accordance with the RAWP (NRT, September 2012) submitted to the USEPA on Septeml

- USEPA issued an Enforcement Action Memorandum, effective April 8, 2013, to document the determinati Former North Plant MGP Site and to document approval of the removal action proposed in the RAWP (NRT

■ USEPA issued a Modification to the Administrative Order on Consent for Removal Action,effective June 1 to include the area of the former Waukegan Tar Pit and Wisconsin Central Ltd. owned Parcel 4. An Addend USEPA on May 30, 2014 and approved by USEPA on June 6, 2014. NSG and Wisconsin Central Ltd. exec 12, 2013.

2.1.4 Progress Metrics

February 2013 – May 2013

Site Preparation: site clearing, perimeter fence replacement, electrical infrastructure installation, constructi equipment mobilization.

May 2013 – July 2013

Removal Action Preparation: Background and start up perimeter air monitoring, erosion control installatio areas,site water service installation, and construction of site entrance tracking pads, site access road, batch decontamination/water treatment pad.

July 2013 – October 2014

Removal Action Construction: ISS equipment mobilization,ISS pilot-scale evaluation, full-scale ISS const structure demolition and removal, general fill placement and grading, topsoil placement and grading, and pe

September 2014 – November 2014

Site Restoration: Topsoil placement and grading, seeding and mulching, erosion control blanket installatio service modification.

Waste Disposal Summary

Soil/debris/ISS swell	Solid	93,277 Tons	Landfill (WMI - Profile 1946)
ISS	Solid	299,589 CY	In-situ Treatment (Solidification/stabilization)

Regional Metrics		
This is an Integrated River Assessment. The numbers should overlap.	Miles of river systems cleaned and/or restored	N/
	Cubic yards of contaminated sediments removed and/or capped	N/
	Gallons of oil/water recovered	N/
	Acres of soil/sediment cleaned up in floodplains and riverbanks	N/
Stand Alone Assessment	Number of contaminated residential yards cleaned up	0
	Number of workers on site	2C
Contaminant(s) of Concern	VOCs, SVOCs	
Oil Response Tracking		
Estimated volume	Initial amount released	N/
	Final amount collected	N/

CANAPS Info		FPN Ceiling Amount	N/
		FPN Number	N/
		Body of Water affected	N/
Administrative and Logistical Factors (Place X where applicable)			
Precedent-Setting HQ Consultations (e.g., fracking, asbestos)	X	Community challenges or high involvement	
More than one PRP		Endangered Species Act / Essential Fish Habitat issues	
XAOC		Historic preservation issues	X
UAO		NPL site	
DOJ involved		Remote location	
Criminal Investigation Division involved		Extreme weather or abnormal field season	X
Tribal consultation or coordination or other issues		Congressional involvement	
Statutory Exemption for $2 Million		Statutory Exemption for 1 Year	
Hazmat Entry Conducted – Level A, B or C		Incident or Unified Command established	

Green Metrics	
Metric	**Amount**
Diesel Fuel Used	
Unleaded Fuel Used	
Alternative/E-85 Fuel Used	
Electricity from Coal	
Electricity from solar/wind	
Electricity from grid/mix	
Solid waste used	5300 yd dredged sediment, 34,139 tons GGBFS
Solid waste recycled	71 tons steel

2.2 Planning Section

2.2.1 Anticipated Activities

The following sections discuss planned response activities and next steps.

2.2.1.1 Planned Response Activities

No additional Time-Critical Removal actions are anticipated.

2.2.1.2 Next Steps.

Continue work on RI/FS with USEPA
Continue coordination with utilities and City of Waukegan
Continue quarterly GW monitoring as required
Submit validated GW and soil Data to USEPA

2.2.2 Issues

No issues reported

2.3 Logistics Section

Not applicable (NA)

2.4 Finance Section

2.4.1 Narrative

Responsible Party (North Shore Gas) is providing all financial resources for the Removal Action.

2.5 Other Command Staff

2.5.1 Safety Officer

EPA has approved the HASP approved by North Shore Gas.

2.5.2 Liaison Officer

NA

2.5.3 Information Officer

NA

3. Participating Entities

3.1 Unified Command

NA

3.2 Cooperating Agencies

IEPA
City of Waukegan

4. Personnel On Site

No on-site personnel

5. Definition of Terms

No information available at this time.

6. Additional sources of information

6.1 Internet location of additional information/report

Additional information can be found at www.epaosc.org/northplant.

6.2 Reporting Schedule

No future reporting anticipated

7. Situational Reference Materials

NA